

REMARK

Applicant respectfully requests reconsideration of this application as amended. Claims 1, 3-5, 9, 10, and 12-21 remain in the application. No claims have been amended, added, or canceled.

Rejections under 35 U.S.C. § 103(a)

Applicant's claims 1, 3-5, 9, 10, and 12-21 have been rejected under 103(a) as being obvious over Edlund, U.S. Patent 6,546,388 in view of Doliov, U.S. Patent Publication No. 2006/0004594. Applicant does not admit that either Edlund or Doliov is prior art and reserves the right to swear behind either of these references at a later date. Nonetheless, Applicant respectfully submits that the invention as claimed in claims 1, 3-5, 9, 10, and 12-21 is not described or suggested by the combination of Edlund and Doliov.

Edlund discloses ranking search results based on click popularity and document recency (Edlund, Figure 4, Label 0405). Click popularity ranks a search result based on the number accesses (i.e. clicks) of a piece of information (Edlund, Col. 3, lines 46-48). That is, a search system using click popularity ranks higher a more accessed piece of information than a less accessed piece of information. On the other hand, document recency tracks the age and update frequency of the piece of information (Edlund, Col. 3, lines 48-49). Update frequency ranks only the most recent version of the piece of information (Edlund, Col. 9, lines 31-32). For example "the popularity count is only incremented for the newest version of the website (version 0), which means that the popularity count weighs the new version [of the website] more heavily than any previous version [of the website]" (9/19/06 Office Action, p. 4). As a result, "the weighting is accumulated only for the most recent version" (9/19/06 Office Action, p. 7). Because Edlund increment the newest version and not the older version, Edlund weighs only for the most recent version and gives no weight to the older versions.

Edlund further discloses that the click popularity and document recency can be weighted as components of a final document relevancy score (Edlund, Col. 7, lines 29-54).

Doliov discloses using limited data to yield information about the validity of any given interaction with a website (Doliov, Abstract). To determine the validity of a user interaction, Doliov further discloses collecting aggregate and unique feature data, such as information about searches, Internet Protocol (IP) address, time of search, etc. (Doliov, paragraph 32). This data is merged to yield data such as clicks per IP address per hour and searches per search term per hour (Doliov, paragraph 33, Table 3). This information is used in models to determine whether the data is valid user interaction or is an invalid interaction (Doliov, paragraph 29).

Applicant respectfully submits that Edlund and Doliov do not teach or suggest Applicant's claims. The Examiner apparently equates Edlund's weights that are used to compute a relevancy score to Applicant's claimed rank adjustment factors and Edlund's relevancy score to Applicant's enhanced popularity score (Office Action, page 2). However, Edlund's weights are used to weight different components of the popularity vector in order to compute a relevancy score (Edlund, Col. 7, lines 29-54). For example, Edlund discloses different weights for the number of times a resource has been accessed, number of times the resource has been offered but ignored, and how well the resource matches the query (*Id.*). However, none of Edlund's weights boost a low valued relevancy score because the relevancy score itself is low.

In addition, a further section of Edlund (Edlund, Col. 3, lines 41-51) cited in support for the Examiner's rejection of claims 1 and 3 merely discloses that three measures are used to calculate the overall relevancy of a document. However, none of these measures boost Edlund's relevancy score if that score is low. Furthermore, there is no other disclosure in either Edlund or Doliov that increases a popularity score for a click using rank adjustment factors, where the rank adjustment factors increase the score for a click that has a lower score. For example, claim 1, as amended, requires "creating an enhanced popularity score for a piece of information based on inflation and rank adjustment factors applied to clicks of the piece of information, wherein the inflation factors weigh more recent clicks of the piece of information more heavily than older clicks of the piece of information based on timestamps of the recent and older clicks and the inflation factors contribute a positive value to the enhanced popularity score for each

of the clicks, and wherein the rank adjustment factor increases the enhanced popularity score for lower enhanced popularity scores."

Claim 3, as amended, states "determining a result of the search consisting of ranking the result based on an enhanced popularity score, wherein the enhanced popularity score for a piece of information weighs more heavily a newer click for the piece of information than an older click for the piece of information based on timestamps of the newer and older clicks, wherein the enhanced popularity score for lower rank pieces of information is increased using rank adjustment factors, and each piece of information contributes a positive value to the enhanced popularity score."

The above quoted limitations are not described or suggested by Edlund and/or Dolioy. Support for the claims, as amended, can be found in paragraphs 17-18.

Furthermore, neither Edlund nor Dolioy disclose determining an expected click rate and adjusting the ranking based on the actual click rate against the expected click rate as claimed in claim 9. The section of Edlund cited by the Examiner in support of his rejection for this claimed element discloses that a relevancy score is calculated using a version adjusted popularity and/or document recency (Edlund, Col. 10, lines 61-62) and that the steps for ranking documents can be performed in different order without loss of generality (Edlund, Col. 11, lines 5-7). However, neither of these sections discloses an expected click rate or adjusting a ranking based on an expected click rate. Claim 9, as amended, claims, "modifying the time history of clicks by applying a time decay rate to each click in said time history of clicks, wherein the time decay rate produces a value greater for a newer click of the piece of information than an older click of the piece of information based on timestamps of the newer and older clicks and each value is a positive value; generating the enhanced popularity score for the piece of information based on the modified time history of clicks; determining an expected click rate for said piece of information; adjusting the enhanced popularity score based on assessing actual click rate of said piece of information against the expected click rate."

The above quoted limitations are not described or suggested by Edlund and/or Dolioy. Support for the claims, as amended, can be found in paragraphs 5 and 36-37.

The Examiner further asserts that Edlund's popularity counts are time decay rates because the popularity counts are incremented for the most recent version of the same URL and uses this assertion to reject claim 15. However, this section of Edlund clearly discloses that the popularity counts are based on a URL's version not the time the URL was clicked. For example, Edlund's version based popularity counts assigns that same value for newer and older clicks to the URL of one version. This is not the same as a time decay rate that produces a greater value for newer clicks than older clicks. In addition, neither Edlund nor Doliov disclose time decay rates that are used for highly and/or lower trafficked sites. For example, claim 15, as amended, requires, "generating at least two hypothetical enhanced popularity scores for the piece of information based on said click history and said high and low click time decay rates, wherein the time decay rates produce a value greater for a newer click of said piece of information than an older click of said piece of information based on timestamps of the newer and older clicks and each value is a positive value, wherein the high click time decay rate is for a highly trafficked site associated with said piece of information and the low click time decay rate is for a lower trafficked site associated with said piece of information."

The above quoted limitations are not described or suggested by Edlund and/or Doliov. Support for the claims, as amended, can be found in paragraph 34.

Neither Edlund nor Doliov disclose using a time and date code that is used to track the time difference between when a user requests a piece of information and when a user was redirected to that piece of information. In support of his rejection of claim 20, the Examiner asserts that Edlund's document relevancy is based in part of document age, in which document age is the time difference between the time the document was created and the time the document was requested. However, this is not the same as tracking the time difference between the time a user requested the document and the time the user was redirected to that document. Thus, Edlund does not disclose this limitation. Claim 20, as amended, cites, "placing a time and date code for a piece of information in a call to a tracking website, the time and date code used track the time difference between when the user requested the piece of information and when the user was redirected to that piece of information."

The above quoted limitations are not described or suggested by Edlund and/or Dolioy. Support for the claims, as amended, can be found in paragraph 51-52.

For at least these reasons, Applicant respectfully submits that the independent claims are allowable. The Applicant respectfully submits that the dependant claims are allowable for at least the reason that they are dependent on an allowable independent claim.

Conclusion

Applicant respectfully submits that the rejections have been overcome by the amendments and remarks, and that the Claims as amended are now in condition for allowance. Accordingly, Applicant respectfully requests the rejections be withdrawn and the Claims as amended be allowed.

Invitation for a telephone interview

The Examiner is invited to call the undersigned at 408-720-8300 if there remains any issue with allowance of this case.

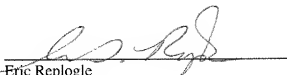
Charge our Deposit Account

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

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